

No. 792,003.

PATENTED JUNE 13, 1905.

R. C. CATRON.
DOOR FASTENING.
APPLICATION FILED MAY 6, 1904.

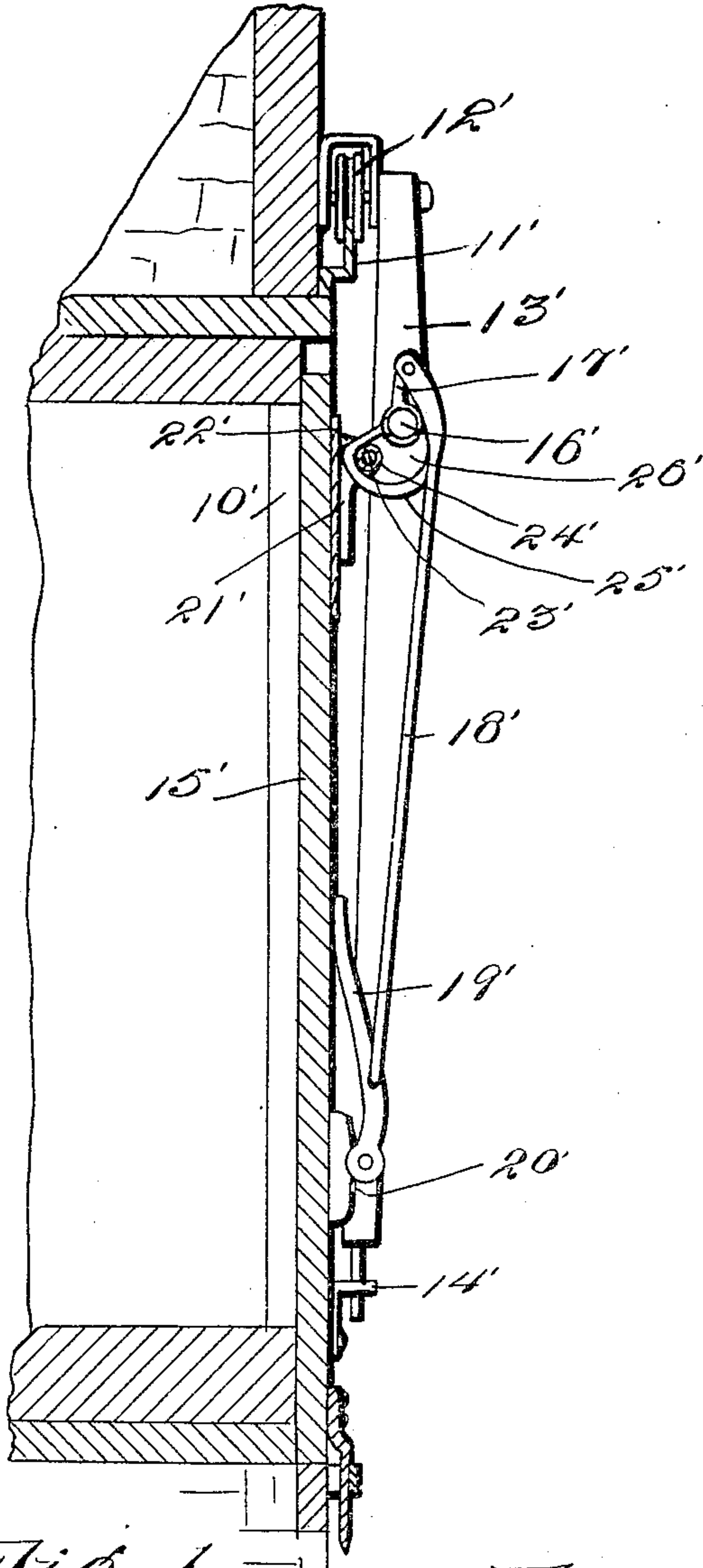


Fig. 1.

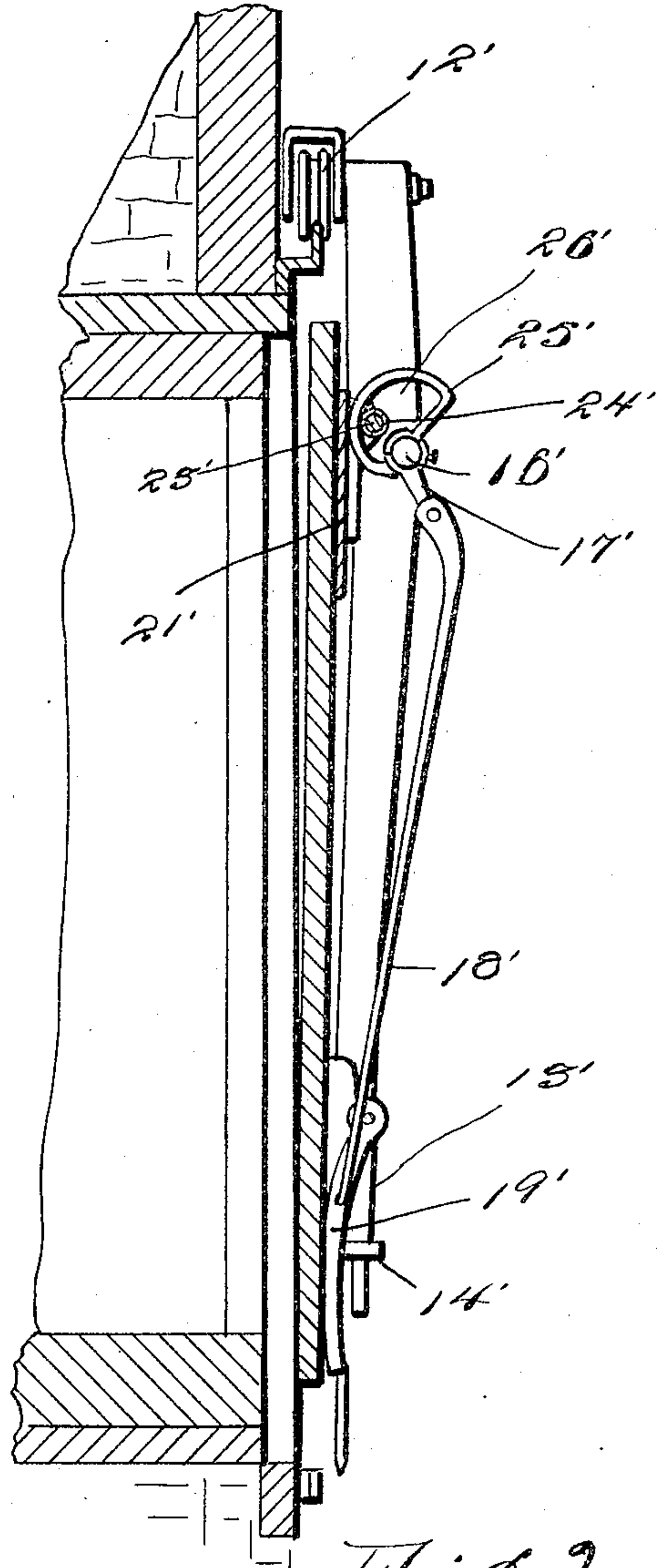


Fig. 2.

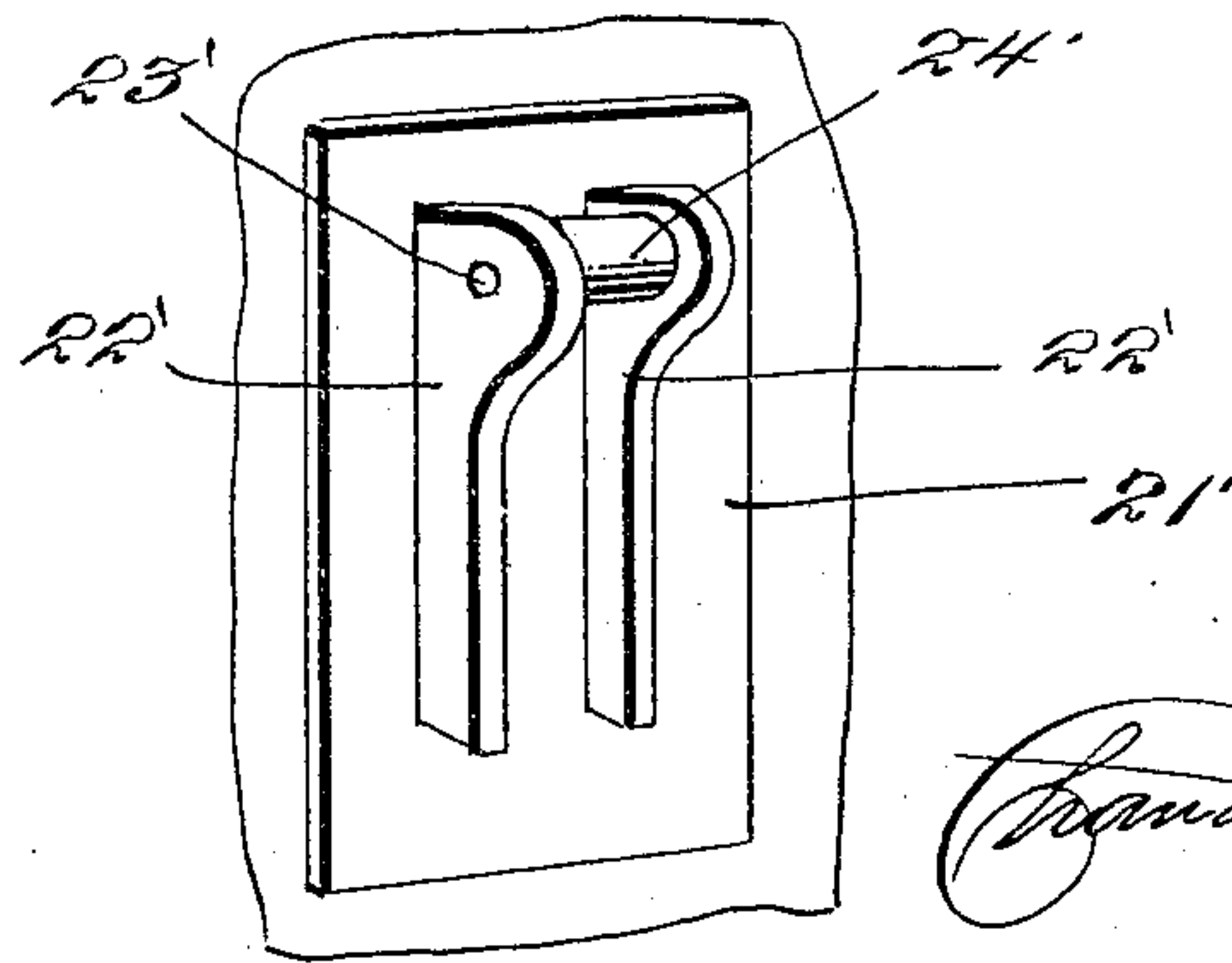


Fig. 3.

Witnesses
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ROBERT C. CATRON, OF WESTFIELD, ILLINOIS.

DOOR-FASTENING.

SPECIFICATION forming part of Letters Patent No. 792,003, dated June 13, 1905.

Application filed May 6, 1904. Serial No. 206,716.

To all whom it may concern:

Be it known that I, ROBERT C. CATRON, a citizen of the United States, residing at Westfield, in the county of Clark, State of Illinois, have
5 invented certain new and useful Improvements in Door-Fastenings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains
10 to make and use the same.

This invention relates to door-fastenings, and more particularly to that class employed in connection with sliding doors, in which the door is provided with wheeled hangers that
15 run upon tracks, the object of the invention being to provide an improved construction which will be simple and efficient, which may be easily and quickly operated, and which when the door is closed will hold the door
20 flush with its casing.

Other objects and advantages of the invention will be understood from the following description.

In the drawings forming a portion of this
25 specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a sectional view illustrating the present invention, parts being shown in elevation. Fig. 2 is a view similar to Fig.
30 1, showing the parts shifted to their opposite positions. Fig. 3 is a detail perspective view of the connection between the door and the shifting cam.

Referring to Figs. 1 and 2 of the drawings,
35 there is shown a door-frame 10', above which is a track 11', on which run the wheels 12', mounted in frames from which depend rods 13', which are slidably engaged at their lower ends in brackets 14' on the outer face of the
40 door 15'. A rock-shaft 16' is mounted in suitable bearings in the rods 13', said shaft having a crank-arm 17', to which is connected a rod 18', pivoted to a lever 19', which is fulcrumed in a bracket 20' upon the face of the
45 door, so that when the lever 19' is raised and lowered the shaft 16' is rocked. When the lever 19' is at its lowermost position, the lower end of the rod 18' has been carried around beneath the fulcrum of the lever, and

the lever bears against the face of the door 50 and prevents upward movement of the rod 18'.

Upon the face of the door 15' are mounted brackets 21', having laterally-spaced ears 22', connected by a pin 23', on which is a roller 24'. Mounted eccentrically on the shaft 16' are 55 segmental cams 25', the curved portion of which is in the form of a rim, this rim being disposed between the roller and the bracket proper, or, in other words, the roller is in the slot 26' of the cam. With this construc- 60 tion when the cam is rocked in one direction, as illustrated in Fig. 1, the outer face of the cam presses against the bracket and forces the door tightly into the door-frame. When the cam is shifted to the position shown in 65 Fig. 2, the roller by passing along the slot holds the cam in close relation to the door, and the door is drawn outwardly from the frame until the roller reaches the end of the slot, when continued movement of the cam 70 serves to raise the door to the position illustrated in Fig. 2. When the cam is returned or rocked in the opposite direction, the door is returned into the frame. It will be noted that the downward pull of the door when in 75 closed position tends to rotate the cam to press the door closer into the frame. The cam is, in fact, a slotted arm, which, in connection with the roller, which lies in its slot, serves first to draw the door upwardly and then to 80 raise it in the same manner as do the arms 17' in the other construction illustrated. Furthermore, it will be noted that when the roller is at the limit of its movement in the slot of the cam-arm there is formed a hinge connec- 85 tion between the arm and the door.

What is claimed is—

1. The combination with a door-frame, a transverse rail above the frame and a door adapted to stand in the frame, of hangers slid- 90 ably engaged with the rail and with which the door is connected for vertical movement, a rock-shaft rotatably mounted in the hangers, plates fixed to the door and provided with ears between which are journaled rollers in spaced 95 relation to the plates, slotted cam-arms mounted upon the rock-shaft and in the slots of which the corresponding rollers are engaged

for limited movement when the cams are rocked and means for oscillating the rock-shaft.

2. The combination with a door-frame, a
5 transverse rail and a door adapted to stand in
the frame, of hangers slidably engaged with
the rail and with which the door is slidably
connected for vertical movement, a rock-shaft
carried by the hangers, means for rocking the
10 shaft, and cam-arms carried by the shaft and
connected with the door and having a degree

of lost motion vertically thereof, said door
being movable under the influence of initial
movement of the cams outwardly from the
door-frame and being movable subsequently 15
vertically with the cam-arms.

In testimony whereof I affix my signature in
presence of two witnesses.

ROBERT C. CATRON.

Witnesses:

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